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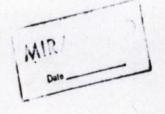
Gersepau Rescue and Recovery Service (MAC)

18 p. R.S. Ret, True of HH- 43 B V HU-16 Assert for Compet Account

Rescue / Berry Museion in Republic of Viet Nam

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17 Jan 1964

HH-43 and HU-16

Operations in SEA

PROJECT CORONA HARVEST

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SECRET 469-1639

AIR RESCUE SERVICE (MATS) United States Air Force Orlando Air Force Base, Florida 1 7 JAN 1964 (A) Use of HH-43B and HU-16 Aircreft for Combat Aircrew Rescue/ ODC Recovery Mission in Republic of Viet Nam MATS 1. (U) References: OOP BUN Mendquarters ARS letter (ARXDC), 25 October 1963, subject: (U) ARS Area Rescue/Recovery Force Requirements. COR b. Headquarters PACAF letter (FFODC), (S), 28 October 1963, subject: (U) Requirement for an Aircrew Recovery Vehicle in the JBH HAI. Pacific Command. c. Meedquarters ARS letter (ARCCO), (C), 18 Movember 1963, subject: (C) Critical Requirement for MATS Professional Air Rescue TIN 444 ECJ Porces in RVII. d. PACAF message (%) (PFODC) 1-2006, 26 December 1963. JCW REP e. Mendquarters ARS message (S) (ARCCO) 346-N, 31 December 1963. f. PACAF message (S) (PFODC) 1-035, 9 January 1964. MIX 2. (8) Purpose: To present information resulting from a study made by this headquarters concerning the feasibility of employing ARS MI-33 and MI-16 aircraft in support of the rescue/recovery mission in the Republic of Viet Nam (MVM) and to request certain XIDE RUDOLP 3. (B) General: A definite requirement exists for professionally qualified Combat Airerew Rescus/Recovery forces in the RVE due to the following reasons: a high combet sortic rate, high density traffic, extensive intra-theater airlift of personnel, adverse weather conditions, and the resulting number of SAR missions experienced.
requirement is definitely a responsibility of the USAF under AFR
95-Y(C), Wartime Search and Resous (SAR), and ABS considers it a
mission of first priority today. Although MS-JC belieopters are
required to accomplish the total mission and have been arguently
requested (see Reference c), ABS action with present equipment is
definitely meeted now. ELA units. (3) Concept of Operations (Reference Tab A): Deploy sixteen
438 helicopters and three E0-16 siroraft to the following NIESVALE, NOT AUTOMATICALLY

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locations: four (h) each helicopters to Bien Hon, Con Tho, De Hang, and Fleikn, and three (3) BU-16 sircraft to Han Trang. The primary helicopter mission will be Combat Aircrew Resear/Recovery and a secondary mission will be Local Base Resear. Helicopter forces will be deployed FCS from USAF resources. The BU-16 aircraft will deploy from the 31st and 33d Air Resource Squadrons on a rotational plan and will provide area search and on-scene communior capability. Fara-resource personnel will be employed with both type aircraft.

#### 5. (a) Compatition, Limitations, and Modification Requirements of the M-AM Melicopter (Reference Tab B):

- a. Operational comphilities which are omtotening in the HI-bjB are high pay lead limits and excellent howering performance at high density altitudes.
- b. Inherent limitations are found in the relatively low top speed of 105 mote, the walmerability of the blade flaps and control rods to ground fire and knewy precipitation, and lack of twin engine reliability.
- e. Mandatory modification requirements prior to deployment to
- (1) Install self-sealing fuel texts to include an extended range text.
- (2) Install 186-b stritude indicator (or equivalent) for improved instrument flying capability.
  - (3) Provide flat curtains for protection of the crows.
- (A) Modify the hoist winch to accommodate a 200 to 250 foot cable.
- (5) Notify blade flags to withstand flight through heavy precipitation.
  - (6) Install VEP-101 AM and ARC-14 FM radios. (TAB D.)

NORS: Keens Aircraft Corporation has indicated their capability to accomplish medifications at the factory within a reasonable perfol.

#### 6. (8) Queretiens/Training (Buference Teb C):

e. 25-435 belicopters will normally be disputched in pairs, one to set as sover and become for the other. One belicopter will also



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recover the other helicopter crew and recovered personnel should at the forced down. Specific location of downed mirerewest will be determined by other mirereft, or from intelligence and operational sources, prior to deploying Mahib helicopters. However to and from the pickep point will be irregular and evasive, avoiding all above firing capability of hostile forces. Altitudes above as an every firepower will be maintained as route. Pighter strengt coverage will be provided helicopter flights. Approaches and departures at both the pixemp point and at operating tases will be at maximum rates including evasive action spiral minesurers. All crew members will be proficient in delivering 'bands-down' firepower with hand-held outcombic rifles.

- b. The present high proficiency level of AE sirerows and support personnel indicates a minimum of additional required training to include contex operations techniques, intensive intrament flying, small arms firing, and escape and evasion training. Training can be accomplished during the time sireraft are being modified.
- 7. (3) Commissions (Reference Tab D): In order for the ML-13B beliespter to perform an unrestricted combat recovery mission in What Hem, it must be modified with VHF/FM, and VHF/FM. The MJ-16 sireraft must be modified with VHF/FM. Installation of IFF in ML-13B beliespters should be predicated on tectical requirements.

### 8. (8) Magistics (Beference Tab E):

- a. (U) General: Support as outlined 1: AFR 11-k must be provided at operational locations for the MS-h3 Detechment: and the MS-16 deployed eigenst.
- b. Supply: Logistical support for the operation will require a precedence rating of 1-4. Furthermore, priority air resupply will be required for the first six months of operation. Authorization of four additional mission support sits will be required to provide increased logistical support at operating locations.
- e. Mintenance: Maintenance will be combusted in accordance with existing phase concept.

### 9. (3) Manager and Organization (Reference Tab F):

a. In addition to the mangement now authorised in Det 3, Pacific Air Reseas Conter, 51 officers and 135 airms will be required. This includes the organization of four hallocater detechnes as with a 1.511 aircrew ratio, segmentation of the JUARC, and a rescue operational

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compare. Approximately jo off cere and 5 minutes cash or attended by minutes from current as marking. This is we a defeast of is officers and 50 minutes.

- b. Pour helicepter detacheset, while a sempset to the Partite Air Resease Center. Operational central will be wester in defir thylsion and will be exercised through not charmed 3, Partite Air Resease Center (JASC). HU-16B sirerest will be deployed from existing Ais units (3lat and 33d Air Resease quadrate), and will be under the operational central of Detachment 3, Partite Air Resease Center (Jaco).
- 10. (s) Personnel (Reference Tap 0): Personnel in support of the belicopter operation should be drawn from hir Force-wide resources. Personnel should be assigned PC; and action taken to expedite the deployment on a priority basis, see also not passess sufficient officers and sirenn i the shifts required to support the entire requirement without severe supposed in dits CORU resource. The personnel requirement, when level of an equitable cases of Force-wide, will result in sufficient numbers of all qualities personnel being withdrawn to provide a personnel the are by an parallel purified purificulation that missions area.
- 11. (() Attrition: on attrition forcer must be considered in the NYM environment. Although an accurate attrition while is not evaluable for this type of operation, and accurate in the heavile indicates justification for the behavior there. Because a choice believes to included in the modification contract with known directific Corporation in order that reduces unit costs may be realized and immediate evaluability will be nestron.
- L. (6) Conclusions The immediate requirement for profinational rescue forces in the FVI to support the ore and contact situation can be estimated by the employment of a interior hologopter are evaluable. The HS-3B is the part simple ble helicopter in the AB inventory. With manifections, it will be expande of fulfilling the urgent requirement. Therefore, it will be expanded that:
  - a. This proposal or approved.
- Required modifications on twenty-two ME-A35 helicopters be under at Kenne Aircraft Corporation, as follows:
- (1) Install welf-seeling fuel thought to include an extension
  - (a) Install 196-4 attitude inicator (or equivilent).

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- (3) Install modified house which to appumment a 200 to
- (4) Install modified blace flaps capable of withstanding flight in heavy precipitation.
  - (5) Bestall fle: ourtains.
- c. The remaining HI-133 belicopters under production contract at Haum Aircourt Corporation, with scheduled delivery to ARC by 1 April 1954, be programmed for the above modifications and subsequent assignment to this mission.
  - d. Additional ME-538 balto-pters from Allo resources be programmed, as directed by USAF, for the above modifications and subsequent assignment to this mission.
  - e. Franch action be taken by Headquarters USAF to secondlish the meallowation of HE-63S resources necessitated by the above actions.
    - f. A precedence making of i-X be assigned for logist eal support.
  - g. Ashborisation be granted for four additional mission support kits (MSE) for ME-538 believpters.
  - h. Ougsmisstices a setions be afforted within four neaths following approval of this proposal, and that manpower allocations be programmed so as to provide total resources concurrently with completed organi-
  - i. Action be taken to assure PCS assignment and deployment of personnel on a priority basis.
  - 13. Cleanfrightion: This document is classified Secret in order to uphold the classification proviously assigned by Headquarters PACAF to this subject.

BRIDE H. WILLIAMS

1. TAB A. Concept of Operations 2. TAB B. ME-ABB Combet Capabilitie / Identations

3. TAB C. Operations and Training b. TAB D. Avionies Requirements

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TAB E. Logistics TAB F. Hompower and Organization

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Tab A

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#### (U) CONCEPT OF OPERATIONS

- 1. (3) The primary mission of BH-438 helicopter Combat Aircrew Rescus/
  Rescuse Process will be directed and coordinated by Joint Search and
  Rescus Center (JSARC), and responsive to 2d Air Division operational
  control. The secondary mission will be aircreft fire suppression
  within alose proximity of the assigned base of operations, and will
  be by direction of the detachment commander in accordance with procedures
  established by coordination with JSARC. These forces will be used solely
  for the primary and secondary missions. Belicopter detachments will
  operate with four BH-338 helicopters from each of the following bases
  in RVM: Ries Hos. Can Tho. De Hang, and Fleiks, with six additional
  modified belicopters assigned to ARS for command support. Flying hours
  will be programmed at the rate of thirty hours per month per helicopter.
  Relicopters will normally be dispetched in pairs, one to act as cover
  and backup for the other. As this operation will be under field conditions with limited supply and maintenance support, an in-commission
  rate of 50 per cent is enticipated. Therefore, the assignment of four
  helicopters to each operating location is mandatory. The detachments
  will provide capability of groupt recovery of downed aircrew personnel
  involved in aircreft accidents, incidents, or similar occurrences
  within operating limits of the helicopters, but will be deployed
  with fighter cover. Belicopters deployed to SVN will be modified and
  conjugated with limited head-held defensive firepower, protective armer,
  and provisions for range extension. ARS aircrew members will be
  trained and equipped for Combat Aircrew leasune/Recovery operations.
  Pararascus personnel and helicopter flight mechanics will be trained
  and used as firefighters in order to preclude reassignment of additional personnel qualified only as firefighters.
- 2. (a) ABS will provide three BU-16 aircraft at Mas Trang Air Base, under the operational control of JSARC, to provide area search and on-sease communder capabilities over land areas for combet rescue/recovery operations. Over unter areas these forces will provide low level wismal and electronic search, pararescue capability, and retrieval of downed aircraws by water landings.
- (U) SAR, communications, and authentication procedures will apply as provided by Joint Regulation: AFR 55-7, AR 525-90, SUPP, NAP 37(A), (U) Martine Search and Research (SAR) Procedures.

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### (3) ME-418 COMBAT CAPABILITIES/LINGTATIONS

i. (U) Botor System. The hinds itself does not appear to be more valuerable than any other helicopter blade. The rotor head appears average compared to other helicopters for withstanding outtle damage. Sinds flags and controls leading to them are valuerable to bettle damage, but the control rods are made of steel and no protection for either is possible. Erosion of blade flags in rain is a problem, however, a new flag leading edge cover unde of polyuruthane is being tested and promises to alleviate this problem.

### c. (a) Punt System-

- a. Self-seeling fuel tanks are necessary to prevent fire hazard and fuel loss when struck by enemy fire or panetration by sharp objects when landing on unprepared fields. Since range is critical, any additional loss of fuel would jeopardise the mission, after it, and drows. Belf-seeding tanks, capable of withstanding 30 caliber fire and interchangeable with those presently in the MB-535, will be available in it weeks from the time the contract is let. No increase in basic weight results due to a loss of approximately four gallons of faciland a gain of approximately 25 pounds in tens weight.
- b. The present redime of action of the HH-533 is all neutical mises. Sadii of action from the proposed heat bases are shown by the inner green circles on the attached map. (Atch i.) To completely cover all areas requires range extension. There are no suctionry fuel tenus available at this time. A requirement exists for external drop tanus. However, pending development of such tenus, an interin 150 gallon tank in the cabin is acceptable. A self-scaling tank of this design weighing 50 possess and gravity feeding to the main tenus can be made available by Sama Afroraft Corporation within 10 wees of contract approval. The entra 150 gallons of fuel will be more than double the present range of the HH-533 and provide greater flexibility of operation. The larger circles on the map (Atch 1), represent the range of the HH-533 with range extension.
- c. Assuming that JP-b funl is made available at all locations indicated on the map (Acch 1), most of Viet Man could be covered by staging the MM-53. Arone that enmot be covered by this method are merned by checks on the map. Locations which now have JP-b funl are marked by a cross. This method of range extension is less desirable than the use of exmilingy tooks due to the mature of the mission in which the time element is of parameter importance. The use of staging locations for refueling would also increase exposure of helicopters to

TAB B

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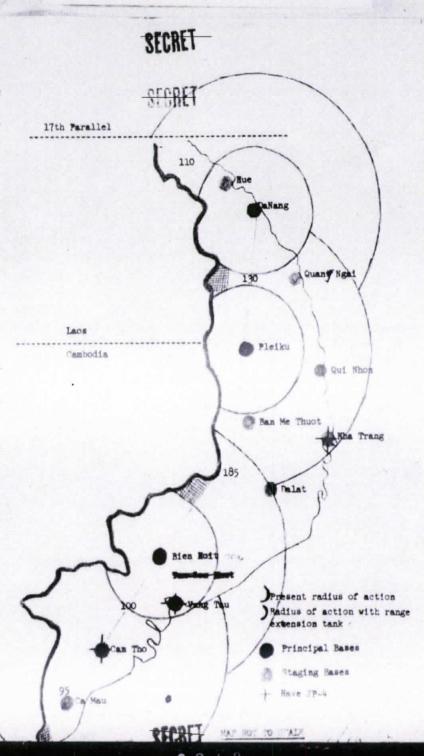
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ground fire as well as present may problem associated with smintaining accounts uncestagisted fuel supplies.

- 3. (U) instrument Complisity. The ML-53B prosences a limited instrument flight expebility and can be used for unavoidable instrument flights not to messen 30 minutes actual meether due to pilot fittings. Recent adverse weather tests and metal by ASD, Wright-Phtterson AFB, Ohio, areclased the most for the Many attitude indicator (or equivalent) to be installed in the ML-53B. (Reference AID-NUM-62-554 Project Number x114/3770, Adverse Macther Tests of the ML-53B). This installation is a manualtry modification.
- 4. (3) Minch Cable. Doe to the height of the trees in some areas of the HVS, a minimum of abb feet of hoist cable to required with a50 feet desirable. Present cable length is 100 feet. Hamm Aircraft Corporation advised that a real and cable of this capacity are available.
- 5. (U) M-AS Airspeed. This sireraft's red line acrapsed is 105 mots. Noter induced vibration levels are excessive at maximum airspeeds for all gross weights, altitudes, a d rotor speeds. The aircraft's relatively low mirageed as a limiting factor in this mission.

#### 5. (N) Parsonnel Protection.

- a. Plat curtains and body armor will be used until better protect on our be procured. Emma Aircraft Corporation is developing a capcule sent to protect believptor pilote; however, this program is it months camp.
- b. An Armalite rifle and a .36 caliber revolver w.li be carried by each erew member in order to provide defensive f repower if required.
- c. Survival kits designed for this area can be procured locally at Ten Sen Most.
- 4. Orew members' hard hats will be painted 00 color and the fetiges uniform worm in lies of the flying suit.
- e. Personntes will be worn with extrao carried sheard the belieupter for use by recovered aircress.



Tab C

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#### (U) OPERATIONS AND TRADELED

### 1. (5) HE-43B Halicupter Operations.

- a. Primary mission is aircrev recovery. The following factors are measury for mission accomplishment.
- (1) Helicopter flight eress will be composed of two pilots, one helicopter flight mechanic and one parerassesson.
- (2) The belieopters will be dispatched in pairs whenever possible, one to not as cover and backup for the other.
- (3) The helicopters will be dispetched only to predetermined cresh and/or survivor sites. The helicopter will not engage in extended pattern searches.
- (b) The belieopters will surmaily fly at a minimum altitude of 1500 feet above the ground when going to and from a recovery site. An alaited of 2500 feet above the ground will be flown when .30 enliber enough fire is expected. If .50 caliber fire is expected on altitude of 5000 feet will be flown.
- (5) Every effort to contact and identify nurvivors will be made prior to attempting a piermp.
- (6) Spirel, high speed approaches to recovery locations will be unde. Unprepared landing areas may be stained with bankoo or steel reds to hinder/prevent helicopter operations, and appropriate precontinuous measures will be taken. However, and/or moving pickups will be unde when possible to expedite departure. Departures will consist of climbing turns at high rates of climb to desired altitude. Evalue action will be taken as required and no climbouts on source will be unde.
  - (7) RESEAF will be required for protection of the belicopter.
- (8) Hear doors of the helicopters will be removed to permit rapid entry of resource.
- (9) If one helicopter is forced down, the accompanying helicopter will be used to recome the aircree in distract; if this is not possible, the cour numbers should eccape from the area immediately, taking survival guay and evading bound the secret known friendly appea.

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- (10) Priffic petterns will be irregular to avoid a predictable pattern and will not be started at less than 1500 feet altitude.
  - b. BE-438 secondary Mission.
- (1) The capability of the HB-638 to suppress aircraft fires will be utilized when friendly aircraft have evaded on or in the immediate vicinity of the assigned air base. HB-638 helicopters will respond in pairs when a crash has occurred off base even though the distance will be short.
- (2) One MM-A3B will be configured for the secondary mission and the other will fly becamp for the one effecting the fire suppression/rescue. The helicopter performing the secondary mission will not carry range extension fuel but will deploy with the fare suppression ait (FSE). Malicopter detechment communiors will screenly the helicopters for the secondary mission in accordance with procedures established in coordination with the JGAMC.
- e. Hight operations of belicopter forces will be limited due to increased valuerwhility of the belicopters to ground fire and obstructive tectics, in addition to the basards normally restricting such operations.

### 2. (A) BU-16 Aircraft Operations.

- a. Alrerew recovery operations by Hi-ló aircraft will be similar to the reseas activities performed in Hores. Some changes will be secessary due to differences in the type of terrain and hostile action to be associated. Hi-ló aircraft will provide modium level electronic search over land areas and low level search and recovery over water areas to include inland bodies of water when known to be deep enough and large smooth to seconsoiste Hi-ló aircraft. Hedium level altitudes over land are defined as \$,000 feet above the ground and based on the fellowing assumptions:
- (1) That enemy ground-to-air firepower will be mainly small arms automatic fire.
- (2) That most downed sirerew numbers will have radio or homer beacon capability.

Hi-16 aircraft will then be shie to quickly and safely seen any area of high probability for survivors' signals, and then Irosted, guide other resons vahicles to the seems for the actual recovery. If the seems area is over unter, the Hi-16 aircraft will be expuble of low level visual and electronic seems, actual unter lendings, sirerow

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recovery, and return. If the survivore are on a beach, the aircraft will be capable of landing in the water, then beaching or taxing near enough to shore to allow the survivor(s) to swim to the HU-16. If see and wind conditions do not permit a water landing, the HU-1 lit will be delivered. If the survivors are injured and cannot reach the HU-16 will then orbit overhead and guide other reacus vehicles to the scene for the notual recovery. Hight water operations and recovery are not contemplated, although night electronic search operations may be conducted if deemed practical.

- b. Aircraft and Aircraft Assignment. The 33d Air Resemb Squadron will provide the Bi-16 aircraft with aircraft and the 31st Air Resemb Squadron will provide one. Each aircraft will include two parameters. Maintenance, avicaice, and sheet metal support personnel, as required, will also be supplied by each unit. BU-16 personnel will be deployed on 30-day rotational tours.
- Aircraft Modification/Changes. The following actions are recommended although they are not mendatory prerequisites for MU-16 aircraft.
- (1) Armsmat: Afrerew members should be provided with Armolite rifles and .3d emliber weepons for protection.
  - (2) Body armor and flas curtains are required.
- (3) Aircraft marxings: Compuflage painting is not required, but elimination of the yellow Rescue markings is recummended.
- 3. (a) Training. Air Resons personnel are currently maintaining a high degree of proficiency in the weapon systems to which they are assigned. Training will be required for the combat resons/recovery wiseion and to physically and psychologically prepare ARI personnel for combat operations. In addition, helicopter flight mechanics and passweeces personnel assigned to RVS helicopter units will be used as firefighters and will require complete training in Fire Suppression Rit (FSK) operation.
  - a. Planning Detail
    - (1) Only fully qualified ARS aircress will be utilized.
    - (2) All belieopter pilote will be MCC qualified.

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(3) An airerew will constat of:

M-438

MU-16

Pilots (2)
Flight Mechanic (1)
Perspectus (1)

Pilots (2) Navigator (1) Flight Mochanic (1) Andio Operator (1) Farerecus (2)

- (h) NW halicopter detachments will perform both aircres recome/secovery and fire suppression missions.
- (5) Bi-16 eircraft will perfore as search sireraft and accomplish water recovery missions as well as provide on-search commander's responsibilities.
- b. Combat Aircrew Training. Belieopter personnel will receive combat rescue/recovery training as in-unit training. This training will be sundanted by ARG belieopter personnel who have had the most experience in this type of operation. Subjects to be temphs are:
  - (1) Combat mission flight planning.
  - (2) Brasire flight to avoid ground fire.
  - (3) Flying procedures for scuntain operations.
  - (4) Boist operations from 250 feet elevation.
- (5) Laming site evaluation with rapid and evasive approaches and departures.
- (6) Combet operational takeoffs and landings with various gross weights.
- (Y) Tactical flight procedures for belicopters operating in pairs.
- (8) Instrument flying to include both booked flight and flight under DE.
  - (9) Communications (AFR 55-7).

Selicopter flight measures and parameters personnel assigned to MN units will perform an additional role as firefighters. The flight

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mechanics will receive FSK training as in-unit training and the percresses personnel will attend the FSK portion of the 10:100A course at Stead AFB, Reveals. Pararescent personnel will also receive MB-538 fundiarisation flights and operational FSK training at COMBS LRR units.

BU-lé aircrave will not require special combet aircraw flight training. However, extensive training in acter maneuvers such as water taxiing and beaching operations will be required. This training will be accomplished as in-unit training.

- c. General Military Training. General Military Training will be required to prepare AND personnel for conduct operations and will be conducted by persuascus personnel at belieopter units identified to support this plan. Persuascus personnel will conduct this training while they themselves are receiving NN-438 flight femiliarization. Subjects to be tought are:
  - (1) Physical conditioning (daily supervises periods).
  - (a) Code of Cummact.
  - (3) Mealth and military assistation.
  - (b) First Aid.
  - (5) Security.
- (6) Servivel (at Air Division will be toomed to provide Ecoape and Evesion Training in the theater of operation).
- (7) hall arms (bost beast will provide firing ranges and equipment as required).
- i. Asymmeting Personnel. Helicopter prious must be basic N-43 qualified (10050). Support personnel should be qualified on this type of equipment. All personnel will receive complete ANS qualification and proficiency training, as well as the above combet and general military training, at CONN: LON units.

THOFT

(1) Avionics equirements for STORET -16 An operations in letness

- 1. () The Aeronautical Communications environment for tower, AFC, and ACC in Vietnam consist of UBF (225 to 500 mc AM), VHM (108 to 159.9 mc AM), UF (2 to 30 mc AM).
- 2. (4) Army field communications are HV (21.0 to 51.9 mc "M).
- (%) The sirveys structure in Vietnem ir based entirely on low frequency beacons, and the majority of terminal neviration side are low frequency beacons.
- L. (1) Four terminal TACAN stations and one WOF station are located in Tietnam as follows:

A. PA XUZEN TA AN

b. CAM THO TACAN

C. DAMARD TACK

d. CHD, HANK TAC

e. TAN SON

- 5. (U) The standard ale 3E avionics confirmation consists of:
  - e. AN/An 36 Transceiver, 225 to 600 mc AM.
  - b. AN/ NA-25 THY/ATT, 225 to 400 ac Ad.
  - c. AM/ANN-59 Hadio Compass, 190 to 1750 ke's.
- 6. (U) The standard HU-16 avionics configuration consists of:
  - a. AN/AHC-27 DIF Transceiver, 225 to 100 ac AM.
  - b. WH-101 Transceiver, 108 to 159.9 ac AM.
  - c. 6187-2 My Transceiver, 2 to 30 mc, AM, 184, CA.
  - 1. AN/ARC-8, 1700 he to 18 mc.
  - e. AM/AFN-LA Hadio Compans.
  - f. AN/ARM-11 OPMI Hange Receiver.

TAB D

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- E. AN/AN-21 TATAN Seceiver.
- SECRET
- he AN/A-M-18 and ARN-11 113 yetem.
- 1. AN/AHH-12 Marker Beacon.
- J. AN/API-25 IN Trensponder.
- k. AN/ATH-9 LAKAN A.
- 1. AN/AFI-28 IV: interrogator.
- m. Ah/AF 31 Mevigation mader.
- n. SAMAN eceiver.

#### MSCUSSION:

- 7. (%) Seeis Auronautical Consunications in Virtues is VHY (108 to 157.9 mc AN). Uni (225 to 1000 mc) is caployed to satisfy US Military requirements, and not all airfields have a capebility on UNF. Any sireraft operating in Vietnam without THY will be severally limited in communications.
- 8. (S) HF (2 to 37 mc) Communications is employed for long range ATC Communications and would not be a factor in belicopter operations. HW-16 aircraft are equipped for the HF environment.
- ground forces and supporting aircraft. Lack of "TV" would eliminate any capability to communicate with Army ground forces during recovery operations.
- 10. (3) Air Force action to procure the UNT-21 Personal Locator Beacon should see the UNT-21 become the aircress Personal Locator Beacon during Calender Tear 1965. The UNT-21 is computible with the UNT communications and AUA-25 UNF/AUF systems in the SU-16 and NH-135.
- 11. () The standard Air Force of -11 and follow-on wid-10 mergency radies are compatible with the off communications systems in the HU-16 and Mi-13.
- 12. (3) As indicated in pure 6, HU-16 aircraft are equipped to receive the ADAH personal locator beacon, but equipment is supported by NADA. A few SAHAH installations have been made in HH-130's in the PA AF area, under the suspices of FACAF, but it is not an Air force accepted system, and is not supportable thru Air Force Supply Channels. The Air force Personal Locator Mescon program is predicated on the UFT-21 beacon operating against standard AF communications receivers and AFF/AFF systems.

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- 13. (5) In order to make HU-16 and HH-138 aircraft compatible with the communications environment in Vietnam, WHF/AH and WHF/FM equipment is required to be installed in the HH-13B and WHF/FM to be installed in HU-16.
- 1h. (4) installation engineering on VHF/FM for either the HU-16 or HH-13h has been accomplished but would not pose any particular problem.
- 15. (%) The Hh-13 is not equipped with IFF. Tactical requirements for IF in nelicopter overations in Vietness are not known at this writing.

#### CUMCINISIE NO

- 16. (v) In order for the HH-h3B to perform an unrestricted combat recovery mission in Vietnam, it must be modified with VHF/AM, and VHF/FM.
- 17. (1) In order for the HU-16 to perform an unrestricted combat recovery mission in Tietamm, it must be modified with THF/FM.
- 1'. (N) Installation of 1/8 in 65-135 should be predicated on tectical requirements.

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#### (U) HATERIEL TAB

- (U) G.N.RAL. Dris tab contains general guidelines of the Materiel Punctions.
- 2. (U) ASSUMPTIONS. Logistic support at the forward operating locations specified in the basic plan will be limited.
- a. (U) Cuarters and mossing facilities will be available and provided by existing host military element.
- b. (U) Limited field maintenance and related AGT support will be available.
- c. (U) Aircraft spares support will be provided (res the mission support kit (MSK) for Mi-438 aircraft, and the Nuclear Air Transportable Kit (MATK) for MU-168 aircraft, with re-supply from Clark AB, as required.
- d. (U) FOL and adequate fuel dispensing facilities will be made available at each designated operating location (Ref basic plan).
  - (1) H-438 AVCAS JP-4, Off 7808.
  - (2) 1U-168 AVGAS 115/145 011, 1100.
- o. (U) All materiel storage facilities are insuccuate. Outside storage conditions will prevail in most instances. (Tents will most likely be the only storage shelter available).
- f. (U) Main resupply point will be designated as Clark AFS. F85250.
- g. (S) Two supply airmen, AFSC 64650, will be assigned to each helicopter operating location. Two supply resitions (AFSC 64670) will be located at Ton Son Maut and Clark AB, respectively, as mission liminon representatives.
- J. (U) TASES.
  - a. (U) iiq ARS, DCS/Materiel will:
- (1) (U) Initiate action through MATS for authorization to assemble four Mission Support Kits in support of basic plan and normal ARS deployment contingencies. Mission Support Kits currently assembled and positioned at Lastern ARC, Central ARC, Western ARC and 33 Arescue Sq. will be used to satisfy immediate deployment requirements. Increased MSK authorizations are required for assembly of replacement kits at Bastern ARC, Central ARC, Western ARC and 33 Arescue Sq.

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- (2) (0) Initiate action through MATS for authorization to release RRM assets stocked by the host base at Clark and Saha AB on an as required basis. Controlling agency will be in ARS supply Division (ARMSP-1).
- (3) (U) Initiate action through MATS for increased R-1920-766 and I-53-L-18 engine stockage objectives at Clark AR.
- (4) (U) Repotiate with MATS and applicable support system managers for increased spares stockage objectives at Clark AB and positioning of selected items at the operating locations.
- (5) (U) Coordinate with FACAF, Pac ARescue Con and Clark AB on procedures for:
- (a) (U) Resumply of Lost base stockage objectives, Mission Support Kits and Maclear Air Transportable mobility kit requirements.
  - (b) (U) MRS reporting procedures.
- (x) (S) Establishment and utilization of a mission limited function at Clark AB and Too Don Mast.
- (d) (U) Providing priority bench check and repair of Rep/ites generations from the operating locations within command ishouse capability at Clark As.
- (6) (U) Coordinate with MAT's Support System Managers and bost base supply agency for release and shipment of all (2:-438 spares to Clark AB for augmentation of base supply stocks. (See Appendix I).
  - b. (U) in MATS wills
- (i) (U) Initiate action to obtain increased authorization of four Mission Support Kits in support of 11-438 requirements in basic plan.
- (2) (U) Coordinate with SANA for increase: R-1820-768 and T-53-L-18 engine stockage objectives at Clark AA.
- (3) (0) Initiate action to obtain appropriate Unit Precedence Rating in support of this deployment. Precedence rating entitling use of Force Activity Designator I is required to insure resitive and effective support.
- c. (U) The Mission Limison supply representatives at Clark As will:

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- (i) Coordinate and monitor all legistic support requirements for the ferward operating locations.
- (2) (0) Assist the lost base in achieving maximum use of lateral support.
- (3) (1) Direct requests to ARS (ARMSP-1) for release of MRM hase stocked assets at Clart As and Jaha Ab.
- d. (S) The ARS Mission Supply Representatives located at Ton Son Must Ab. Viet-Mam, will:
- (1) (3) Review and monitor all AG: and spares requirements at each operating location and report requirements to mission liaison representative at Clark AB by fastest available communication.
- (2) (b) Monitor shipment of HU-160 and HU-430 ACI and spares requirements through the terminal transportation facility at Ton Son Nhut.
  - e. (U) Operation Location.
- (1) (U) There will be two supply specialists (AFSC 64650) assigned at each helicopter operating location, who will be responsible for the following:
- (N) (U) Maintenance of the 15-438 MSAs in accordance with MATS Manual 67-3 and ARS Reg 67-1.
- (b) (U) Maintain custodial responsibility for ACL item as required by 2d Air Div and 13th AF.
- (c) (U) Request replacement items for MSK and other immediate requirements from the appointed support activity.
- (d) (U) Maintain adequate records of items consumed for the purpose of making periodic recommendations for additions and deletions to the #4-458 MSK.
- (2) (U) One spare T-53-L-1a engine, (EC kit and ship set of 18'-438 blades will be maintained at each operating location in addition to those items contained in the 181-438 MSK. The T-53-L-18 engine will be removed from can and built-up with (EC kit only if adequate inside storage is available.
- (3) (5) One Hi-43B transmission will be prepositioned and maintained at both Bien-line and Da-Nang.

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- (4) (U) Special logistic requirements applicable to support 12-45% and 10-16% aircraft are contained in Appendixes I and II respectively.
  - f. (U) Squadrons providing pararescusmen will:
    - (1) (U) Provide required equipment.
    - (2) (U) Provide limited stock of medical supplies.
  - g. (U) Maintenance
    - (1) (U) Detachment will:
      - (a) (U) Deploy with all assigned AG.
- (b) (U) Deploy with complete set of special tools for assigned mircraft.
- (c) (U) Insure all mechanics deployed have complete set of han! tools in their possession.
- (d) (U) Deploy with applicable file of technical publications.
- (e) (U) Disassemble and prepare sircraft for shipment as required by applicable dash nine Technical Order.
- (f) (U) Insure the fuel tanks are purped as outlined
- (g) (U) Perform maintenance on assigned HT-43B helicopters under existing phase inspection concept and in accordance with current publications.
- (2) (U) Maintenance Hanning Support Required of Host Bases: The host base must make available at all times, the necessary maintenance specialists required to support this operation. Support to be provided in accordance with AFR 11-4 host/Tenant Agreement is as listed below:

PC Function	outy Position	AFIC	
2310 Fabrication	Airfranc Rymn	534X0	
2333 Elec Sys	Elec Rymn	423X0	
2335 Inst Sys	Inst Ryen	422X0	
2411 Radio	Radio Ryme	30120	

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CONFIDENTIAL



#### (U) 121-438 SUPPORT

#### 1. (U) TASAS:

- (U) Air Rescue Centers, 31/33 APescue Sq will:
- (1) (i) Transfer their 12.-432 WRM mission support kits to the new operating locations as follows:
  - (a) (§) Lastern ARC MEX now located at Robins to blen-toa.
  - (b) (4) hesters AHC HSX now located at Luke AFB to

Da-hang.

(c) (4) Central ARC MSA now located at Perrin AFS to

Pleiku.

(d) (1) 33 Altescue Sc 151 now located at Maha to

Can-Tho.

- (2) (3) Air Rescue Centers and 33 ARescue to will insure that in:-435 MSKs are 1001 complete at time of transfer. MSKs from the 2.1, will be transferred concurrently with in:-436 acft or special strift.
- (3) (0) After deployment of the 14-438 MSKs, the Z.I. Centers will initiate actions to assemble another MSA as authorized to support other contingency operations that may arise.
- (4) (U) Air Rescue Centers will insure transfer with the aircraft full existing bench stocks from locations transferring complete LBR activities.
- (5) (U) Air Rescue Centers, in conjunction with the ARS Limison Office at MANNA, will obtain and replace all time change components requiring change within the next 150 flying hours prior to transfer of aircraft.
- (6) (U) Provide LBRs transferring aircraft with blade, empenage and pylon containers required to sirlift the Mi-436 aircraft insectiately after designation of aircraft to be transferred. ACCC will provide required airlift of these items from current locations to bases transferring aircraft.
- (7) (U) Air Rescue Center supply personnel will provide on-the-spot supervision during the preparation for shipment of MCEs, LAE, AGE, base stocks and bench stocks. Assistance will continue during loading of aircraft and other items.

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CONTRACTAL I





#### (U) LOSING (OST BASE TASKS:

a. (U) lost hase dDM)s from which complete LBR Detachment activities are transferred will transfer all common and peculiar AC required in support of 18.-450 aircraft at the new location. This will include common items required such as air compressor and concerntor sets, that may not appear on the LBR unit's E-AID. Shipping cocuments will be accomplished on all AC items reflecting 405 Ptr hg. WE 5250, as the receiving activity. AC items will be transferred concurrently with the Mi-438 sircraft on the same special airlift aircraft.

b. (U) Two of the host base supply officers supporting the movement of complete LSR units, as designated in the basic plan, will transfer all 121-438 base stockage spares to the BASD at the 405 Ftr Wg. F05250. The items will be identified through use of the 131-438 support system Material Control List (MCL), dated 28 Oct 65, published by MAAMA. Quantities as indicated on the MCL of both common and eculiar items will be transferred, if available. Method of shipment will be by special air lift, air lift provided for movement of 121-43h directifier or via fastest means available through channel traffic.

c. (U) All lost bases from which personnel are transferred will provide departing personnel with required side arms and field configuent.

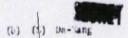
#### 3. (U) MANA TASKS:

a. (U) Authorize and rowide, immediately upon notification from in ARS, the following hul-430 spores at indicate! locations:

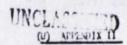
- (1) (U) One ship set of 12:-438 tlades at:
  - (a) (4) uten-10a
  - (b) (9) On-Nang
  - (c) (c) Pletku
  - (d) (h) Can-Tho
  - (c) (b) One additional ship set at Clark AB
- (2) (U) One 141-438 transmission at:
  - (a) (c) inten-ima

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- (c) (S) One additional transmission at Clark As
- (3) (4) Iwo additional ship sets of 181-430 habs at Clark Ab.
- (4) (A) Two additional ship sets of 191-435 Shafts & Housings at Clart Ab.
  - (5) (5) Two additional Azimuths at Clark Ab.
- (6) (5) Two additional 18:-43: Transmission Oil Pumps at Clark Ab.
- b. (U) Upon receipt of revised flying hour program, make recomputations for all spares requirements and initiate immediate additional procurement to support the additional flying hours and dispersal of assets. Notify item control officers at Other AMAS supporting the 18:-438 to initiate similar actions.
- c. (II) Provide the two losing bases not transferring spares to .Clark AB with disposition instructions for all III-438 spares in Stock.



#### (U) HU-16E SUPPRET

- 1. (U) GLMERAL. (U-10s sireraft will be selected and deployed from units in accordance with basic plan.
- 2. (U) TASKS:
- a. (0) The 31st and 33rd Akescue Sqs will each provide one-half NATK (one each mobility type kit) for deployment to the operating location.
- b. (U) The 31st ARescue Sq, through coordination with the host base, will:
- (1) (U) Provide Special Tools and AGE at the operating location on an as-required basis.
- (i) Provide field maintenance engine and propeller specialists to the operating location as required.
- (3) (0) Provide initial bench stock requirements of common imphase at the forward operating location.
  - c. (U) The bost base at Clark As will:
- (U) Provide an R-1820-768 engine and a 43-0-50 propeller in built-up "ready to go" condition for immediate deployment as required.

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## SECRET

### MANPOWER AND CRGANIZATION (V)

 (8) OBJECTIVE: To provide effective and timely manpower and organization support for the organization of balicopter detachments and rotational deployment of fixed wing aircraft in the Republic of Viet Nam.

### 2. (6) ASSUMPTIONS:

- a. (8) There is a requirement for permanent RH-43 belicopter detachments in support of air rescue requirements in the Republic of Viet Nam.
- b. (b) There is a requirement for rotational deployment of HU-16B aircraft in support of air rescue requirements in the Republic of Viet Nam.
  - c. (U) Essential modification of HH-43 aircraft will take four months.
- d. (b) Field a sintenance support will be provided by the host bases, under the provision of AFR 11-4.
- Operational control will be vested in End Air Division with further delegation of responsibilities to Detachment 5., PARC (JSARC).
- f. (U) Flying hour utilization for HH-43 aircraft will be 10 hours per month per aircraft.
- g. (U) All support for HU-16B rotational forces will come from within current ARS resources.
- (f) USAF/MATS will approve a Program Change Proposal for the organization of Helicopter Detachments.

### I. (U) PACTORS

- 2. The current Maintenance Membour Factor applied to ARS RH-43 aircraft is adequate.
- The erew composition will be two Pilots, one Fiight Mechanic and one Purarescensions.
  - c. The crew ratio will be 1, \$:1.

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- 4. (A) MANPOWER RECUIREMENTS FOR ARS MISSION IN REPUBLIC OF VIET NAM:
  - a. Detachment is, PARC (JSARC), Salgon Cholon, Republic of Viet Nam.

FC Duty Pusition	AFBC	GRADE	Current Auth	Required Auth	Difference
100A AIRCRAPT OPE	RATIONS				
Commander	1416	LTC			+1
Con Staff Off	1416	MAJ	1	1	
Air Op Off	1435H	CPT	2	4	+2
Cmd Post Tech	27479	MSG		1	+1
Cmd Post Tech	27470	TSG	1	1	
Cmd Post Spec	27430	68G	1	1	+2
Admin Spee	70250	AIC	1	1	
		TOTAL		12	+6

b. Manpower authorizations required for each beliespter detachment.

EC	Duty Position	AFSC	GRADE	Auth		Req Equais t Mult by Fou	
2200	AIRCRAFT MA	INTENANCE					
	Acf Maint Sup	43190	SMS	+1			
	Hel Tech	43170	MSG			+4	
	Hel Tech	43170	THO	+2		+8	
	Hei Moch	43150	SMC	+4		+20	
	Hel Mech	43150	ALC	+5		+20	
	Admin Spec	702.50	88G	+1		-1	
				+15	(X 4)	+60	
2313	JET ENGINE S	AINTENANC	E				
	Jet Eng Mech	43250	88G	+1		+4	
	Jet Eng Moch	43350	ALC	+1		+4	
				+2	(3.4)	+8	

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PC Duty Position	AFSC	GRADE	Required Auta	Tot Req Equals Unit Req Mult by Four Units
1100A AIRCRAPT OP	ERATIONS			
Pilot Heli	1025C	MAJ	+1 .	++
Pilot Heli	1025C	CPT	+6	+24
Pilot Heli	1025C	LT	+6	+20
Hel Tech	A 13170	TSG	+6	+24
Res Bury Spec	A92170B	TSG	+1	+12
Res Surv Spec	A92130B	38G	+3	+11
Admin Spec	10250	SØG	-1	11 - 1 Dogs
			+24	(X 1) +100
SIGOD UNIT SUPPLY				
Org imp ilpee	64650	SSG	+1	**
Org Sup Spec	64899	AIC	+1	+4
			+2	(X 4) +8

e. Supply authorizations required to support the helicopter detachments.

<u>PC</u>	<u>Function</u>	Duty Position	AFOC	GRADE	Location	Auth
1100	D UNIT SUP	Org Supply Supv		MSG	Clark AB, P	
		Call subbil sub.			(RVN)	

5. Recap of current manpower authorizations in Det #5, PARC, and those which will become available by withdrawing sixteen HH-43B helicopters from ARS resources (based on a representative sample of four, 3 UE, and two, 2 UE LBR helicopter detachments), authorizations required, and action required difference.

## SECRET

Title	GRADE	AFSC	Authorized	Required	or Difference
Commander	LTC	1416	0	1	+1
Pilot	LAM	1025C	0	4	+4
Opes Officer	LAM	1416	1	1	
Pilot	CPT	1025C	16	24	+8
Air Opme Off	CPT	1435H	1	4	+2
Pilot	LT	1026C	17	20	+3
Heli Maint Supt	5M8	43190	6	4	-1
Cmd Post Tosh	MBG	27470	0	1	+1
Heil Maint Took	MEG	43170	0		+4
Orga ship Supy	MEG	64670	0	2	+2
Cmd Post Took	TSG	27470	1	1	
Heli Maint Took	TEG	43170	3		+6
Hell Fit Mech	TSG	A43170	6	24	+18
Orga Sup Supv .	TEG	64679	0	2	+2
Resc Surv Teeb		A92170B		12	+12
Case Post Spee	BBG	27430	1	3	+3
Hell Mech	58G	43150	9	20	+20
Heli Fit Mech	DBB	A43150	12	0	-12
Jet Eng Mech	880	43350	6	4	-2
Orga Sup Spec	89G	64650	0	4	+4
Admin Spec	58G	70250	6	4	+1
Rasc Surv Spec	890	A92130B	0	12	+13
Heli Mech	ALC	43150	0 .	10	+20
Bell Fit Mech	ALC	A43180	16	0	-16
Jet Eng Mech	ALC	A43150		4	+4
Orga Sup Spec	ALC	64640	0	4	+4
Admin Spec	AIC	70260	1	1	
			94	193	+98
			ECAP		
	LTC		٥	1	+1
	MAJ		1	5	+1
	CPT		18	28	+10
	LT		17	20	+3
	534.S			4	-2
	MSG			7	+7
	TEG		10	47	+37
	880		25	51	+26
	ALC		17	29	+12

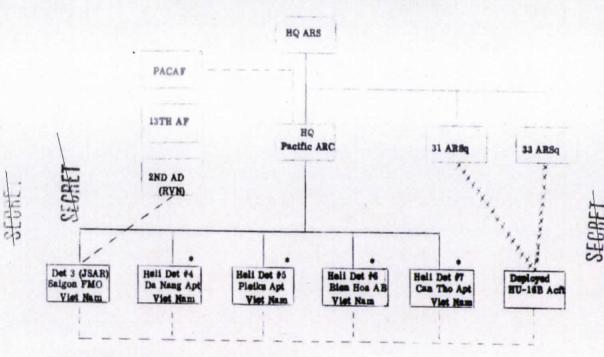
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6. (U) MANPOWER SUPPORT REQUIRED OF HOST BASES: The bost base must make available at all times the necessary maintenance specialists required to support this operation. Support to be provided in accordance with AFR 11-4 Bost/Tenant Agreement is as hister below:

FC	<u>Function</u>	Duty Position	APSC
2310	<b>Fabrication</b>	Airfrace Rpine	531X0
2335	Elect Sys	Liec Rpm.n	23 30
2335	Inst Sys	bast Rpmn	482X0
2411	Radio	Radio Rpma	301X0

7. (8) ORGANIZATION: Pour Helicopter Detachments will be assigned to the Pacific Air Rescue Center (PARC). Operational control will be vested in 2nd Air Division with delegation of responsibility to Detachment #3, PARC (JSARC). HU-16B aircraft will be deployed from existing ARS units (31 and 33 ARSq) and under operational control of Detachment #3, PARC (JSARC). The organization is shown on Attachment #1.

### PROPOSED ORGANIZATIONAL STRUCTURE CHART FOR THE HELICOPTER DETACHMENTS IN RVN



 Detachment numbers are used to identify detachments if and when permanent detachments are established.

Operational control
EXECUTE Deployed aircraft

Tab G

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#### PERSONNEL

- Personnel in support of this program should be withdrawn from Air Porce-wide resources in quantities, skills and APSC's identified in the Manpower Tab. Maintenance personnal should have previous experience on NE-13D balicopters.
- 2. Recognizing that the Air Rescus Service is in possession of skills required to support this program, we can expect to be levied on in numbers sufficient to provide skilled professional Rescus personnel for key positions.
- 3. Remonmed should be selected in accordance with Chapter 2, Part I, APM 35-11. Special care should be exercised to assure compliance with current policy concerning assignment of personnel to the country concerned. For example, port dates should be established in the first five days of the month, specialized training should be completed prior to arrival at PCE, etc.
- 4. Units should be exempted from percentage or PFD restrictions and maintained at 100% of the authorized strength. This is particularly sensitive to units having one or two of a particular said.
- 5. Personnel should be identified and firstly levied in sufficient time to allow for exceste training.
- 6. As the end of the initial groups' tour approaches, replacements should be provided in a number to prevent loss of operational empebility or degradation. This can be accomplished by early arrival of replacement personnel.